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(71) Applicant (for all designated States except US): **KONINKLIJKE PHILIPS ELECTRONICS N.V.** [NL/NL];
Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **NIEUWLAND, Andre, K.** [NL/NL]; c/o Philips Intellectual Property & Standards, Cross Oak Lane, Redhill Surrey RH1 5HA (GB).

(74) Agents: **WILLIAMSON, Paul, L.** et al.; c/o Philips Intellectual Property & Standards, Cross Oak Lane, Redhill Surrey RH1 5HA (GB).

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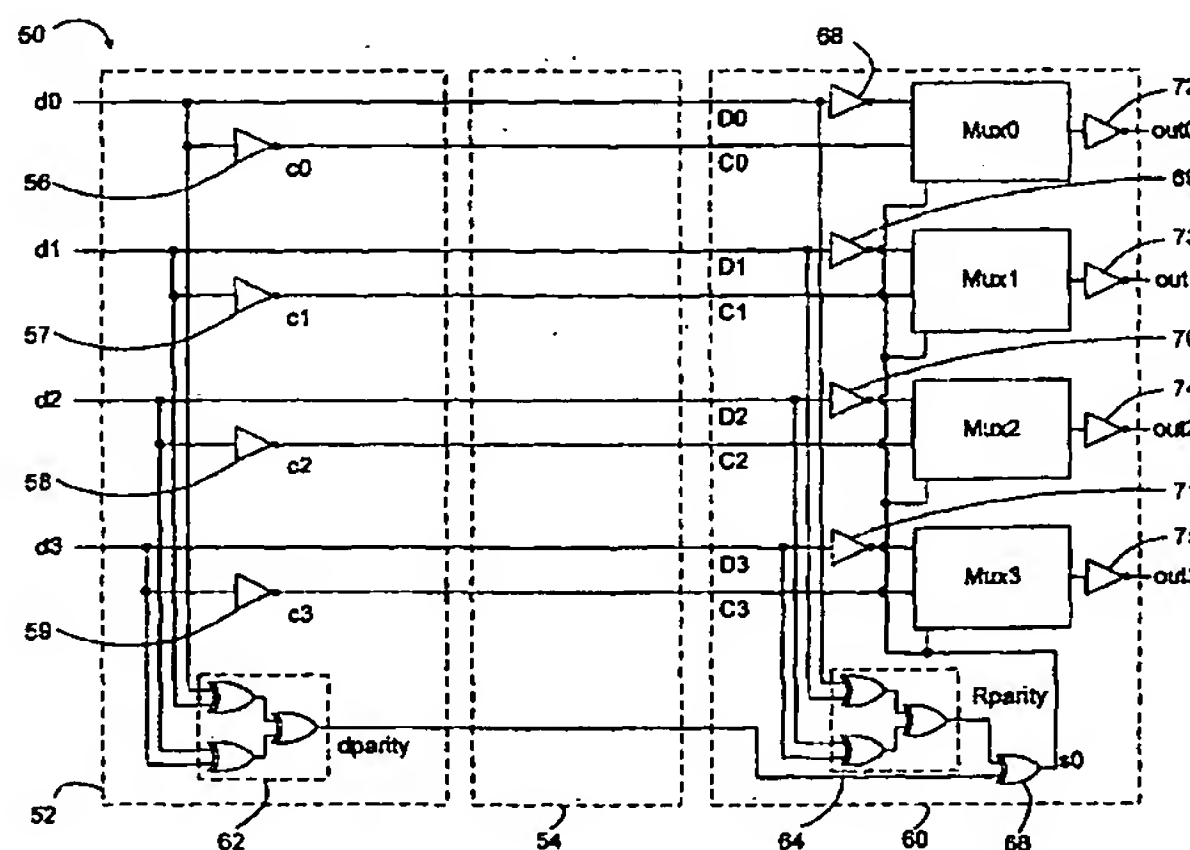
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(54) Title: DATA COMMUNICATION MODULE PROVIDING FAULT TOLERANCE AND INCREASED STABILITY



(57) Abstract: A module for transmitting sets of data bits to another module via a communication bus using dual-rail encoding is provided that has a reduced switching activity. The module comprises bus invert coding means adapted to compare a set of data bits with a preceding set of data bits to determine an indication of the number of transitions required to transmit the set of data bits; invert the set of data bits prior to transmission if it is determined that the number of transitions required to transmit the set of data bits is greater than half the total number of bits in the set of data bits; and provide an indication of whether the set of data bits has been inverted; the module also comprising means adapted to generate respective copies of the data bits in the set of data bits; and means adapted to transmit to the other module, via the communication bus, the set of data bits, their respective copies and the indication of whether the set of data bits has been inverted.

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